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<u>L9</u>	L8 and l7	1	<u>L9</u>
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<u>L7</u>	L6 and cancer	1628	<u>L7</u>
<u>L6</u>	L5 and osteoporosis	1832	<u>L6</u>
<u>L5</u>	L4 and diabetes	9423	<u>L5</u>
<u>L4</u>	L3 and treatment	46839	<u>L4</u>
<u>L3</u>	L2 and composition	52444	<u>L3</u>
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1. Document ID: US 6703362 B1

L9: Entry 1 of 1

File: USPT

Mar 9, 2004

US-PAT-NO: 6703362

DOCUMENT-IDENTIFIER: US 6703362 B1

TITLE: Random peptides that bind to gastro-intestinal tract (GIT) transport receptors and related methods

DATE-ISSUED: March 9, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Alvarez; Vernon L.	Morrisville	PA		
O'Mahony; Daniel J.	Dublin			IE
Lambkin; Imelda J.	Dublin			IE
Patterson; Catherine A.	Dublin			IE
Singleton; Judith	Rocky Hill	NJ		
Belinka, Jr.; Benjamin A.	Kendall Park	NJ		
Carter; John M.	Trenton	NJ		
Cagney; Gerard M.	Seattle	WA		

US-CL-CURRENT: 514/12; 424/184.1, 424/185.1, 424/400, 435/69.1, 435/69.2, 436/86, 514/2, 514/21, 530/300, 530/324, 530/350

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L1 12 GASTRO-INTESTINAL TISSUE AND (DRUG TRANSPORT)

=> S 11 AND PEPTIDE
L2 12 L1 AND PEPTIDE

=> s 12 and cancer
L3 0 L2 AND CANCER

=> s 12 and migraine
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E7      2      OMAHONY C/AU
E8      1      OMAHONY C P/AU
E9      1      OMAHONY CORNELIUS/AU
E10     4      OMAHONY D/AU
E11     249    OMAHONY D J/AU
E12     1      OMAHONY F/AU

=> s e10
L6      4 "OMAHONY D"/AU

=> s e11
L7      249 "OMAHONY D J"/AU

=> s 16 and 17
L8      0 L6 AND L7

=> d 16 ti abs ibib tot

L6  ANSWER 1 OF 4 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
TI  New Peyer's patch or M-cell targeting ligand, for facilitating the
    transport of e.g. drugs (such as, analgesics, insulin, antisense
    oligonucleotides or chemotherapy agents) or carriers through the human
    intestinal epithelium.
AN  2003-278270 [27] WPIDS
CR  2003-229409 [22]
AB  WO2003004517 A UPAB: 20050720
    NOVELTY - A purified synthetic polypeptide ligand comprising:
        (i) a 12-mer L-peptide of 1 of 37 sequences;
        (ii) a 12-mer D-peptide or retro-inverted peptide of (i);
        (iii) an L-peptide (no more than 200 amino acids), of 1 of 23
    sequences, not given in the specification;
        (iv) a D-peptide or a retro-inverted peptide form of (iii); or
        (v) a L-peptide motif, its D-peptide version, or retro-inverted
    version, is new.
    DETAILED DESCRIPTION - A new purified synthetic polypeptide ligands
    comprises:
        (i) a 12-mer L-peptide of 1 of 37 sequences of 12mLP1 - 12mLP42;
        (ii) a 12-mer D-peptide, in which the D-peptide is the D-form of the
    12-mer L-peptide;
        (iii) a 12-mer retro-inverted peptide, which is the retro-inverted
    form of the 12-mer L-peptide;
        (iv) a fragment of any of (i) - (iii), which is 5 contiguous amino
    acids;
        (v) a homolog of one of (i) - (iii), which is 9/12 homologous to any
    of the 12-mer peptide;
        (vi) a L-peptide motif, or its D-peptide version or retro-inverted
    version, where the L-peptide motif consists of one of (A) - (G);
        (vii) an L-peptide of not more than 200 amino acids in length,
    preferably 6 - 12 amino acids in length, where the L-peptide comprises any
    of 23 amino acid sequences, not defined in the specification;
        (viii) a D-peptide of not more than 200 amino acids in length,
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preferably 6 - 12 amino acids in length, which is the D-form of the L-peptide of (vii);

(ix) a retro-inverted peptide of not more than 200 amino acids, preferably 6 - 12 amino acids, in length, which is the retro-inverted form of the L-peptide of (vii);

(x) a fragment of any of (vii) - (ix), which is 5 contiguous amino acids; or

(xi) a homolog of any of (vii) - (ix), where the homologue is 83 % homologous to the L-peptide.

The 12-mer L-peptide, the 12-mer D-peptide, the 12-mer retro-inverted peptide, their fragments or homologs, or the L-peptide motif of (vi) or its D-peptide version or retro-inverted version, when integrated as an N-terminal PIII fusion peptide of an M13 phage confers an ability to bind the phage to either Caco-2 cell, IEC-6 cell, rat, mouse, pig or dog homogenate membrane fractions. The ability is as great as that conferred by a similarly integrated 12-mer peptide not defined in the specification.

INDEPENDENT CLAIMS are also included for the following:

(1) purified nucleic acid sequences encoding the purified synthetic polypeptide ligands; and

(2) administering a pharmaceutical agent to an organism having intestinal epithelium by contacting the intestinal epithelium with the purified synthetic polypeptide ligand, where the ligand is covalently or non-covalently bound to a carrier entity.

Ala-Thr-Pro-Pro-Pro-Trp-Leu-Leu-Arg-Thr-Ala-Pro	(12mLP1)
Asp-Gly-Ser-Ile-His-Lys-Arg-Asn-Ile-Met-Pro-Leu	(12mLP2)
Asp-Tyr-Asp-Ser-Leu-Ser-Trp-Arg-Ser-Thr-Leu-His	(12mLP3)
Gly-Glu-Pro-Thr-Thr-Asp-Met-Arg-Trp-Arg-Asn-Pro	(12mLP4)
Gly-Leu-Trp-Pro-Trp-Asn-Pro-Val-Thr-Val-Leu-Pro	(12mLP5)
His-Met-Leu-Asn-Asp-Pro-Thr-Pro-Pro-Tyr-Trp	(12mLP6)
Lys-Pro-Ala-Tyr-Thr-His-Glu-Tyr-Arg-Trp-Leu-Ala	(12mLP7)
Leu-Glu-Thr-Thr-Cys-Ala-Ser-Leu-Cys-Tyr-Pro-Ser	(12mLP8)
Leu-Gly-Thr-Asp-Trp-His-Ser-Val-Ser-Tyr-Thr-Leu	(12mLP9)
Leu-Gly-Thr-Leu-Asn-Ala-Gly-Val-Pro-Gly-Phe-Pro	(12mLP10)
Leu-Thr-His-Ser-Lys-Asn-Pro-Val-Phe-Leu-Ser-Thr	(12mLP11)
Leu-Val-Pro-Thr-Thr-His-Arg-His-Trp-Pro-Val-Thr	(12mLP12)
Leu-Val-Ser-Asn-Arg-Gly-Phe-Asn-Asn-Leu-Ser	(12mLP13)
Asn-Thr-Arg-Ile-Pro-Glu-Pro-Ile-Arg-Phe-Tyr-Met	(12mLP14)
Asn-Val-Tyr-Thr-Phe-His-Ser-Met-Ser-Pro-Met-Pro	(12mLP15)
Gln-His-Thr-Thr-Leu-Thr-Ser-His-Pro-Arg-Gln-Tyr	(12mLP16)
Ser-Asp-Phe-Ser-Asp-Thr-Met-Pro-His-Arg-Pro-Ser	(12mLP17)
Ser-Ile-Asp-Thr-Ile-Gln-Ile-Leu-Ser-Leu-Arg-Ser	(12mLP18)
Ser-Ile-Ser-Trp-Ala-Ser-Gln-Pro-Pro-Tyr-Ser-Leu	(12mLP19)
Ser-Met-Val-Lys-Phe-Pro-Arg-Pro-Leu-Asp-Ser-Arg	(12mLP20)
Leu-Arg-Arg-Trp-Val-Arg-Val-Trp-Leu-Arg-Leu	(12mLP21)
Thr-Met-Ser-Pro-Asn-Val-Tyr-Tyr-Thr-Ala-Phe-Gly	(12mLP22)
Thr-Gln-Ile-Pro-Ser-Arg-Pro-Gln-Thr-Pro-Ser-Gln	(12mLP23)
Val-Cys-Ser-Asn-Met-Tyr-Phe-Ser-Cys-Arg-Leu-Ser	(12mLP24)
Val-Pro-Pro-His-Pro-Met-Thr-Tyr-Ser-Cys-Gln-Tyr	(12mLP25)
Val-Pro-Arg-Leu-Glu-Ala-Thr-Met-Val-Pro-Asp-Ile	(12mLP26)
Val-Pro-Thr-Lys-Pro-Glu-Leu-Pro-Val-Asn-Phe-Thr	(12mLP27)
Trp-Ser-Ser-Asp-Leu-Pro-Gln-Pro-Ala-Ser-Thr-Tyr	(12mLP28)
Tyr-Ile-Thr-Pro-Tyr-Ala-His-Leu-Arg-Gly-Gly-Asn	(12mLP29)
Asn-Val-Tyr-Thr-Asp-Asn-Thr-Leu-Ser-Pro-Thr-Pro	(12mLP30)
Leu-Glu-Thr-Thr-Ala-Ala-Ser-Leu-Cys-Tyr-Ser	(12mLP31)
Leu-Glu-Thr-Thr-Cys-Ala-Ser-Leu-Ala-Tyr-Pro-Ser	(12mLP32)
Leu-Glu-Thr-Thr-Ala-Ala-Ser-Leu-Ala-Tyr-Pro-Ser	(12mLP33)
Leu-Glu-Thr-Thr-Ser-Ala-Ser-Leu-Ser-Tyr-Pro-Ser	(12mLP34)
Val-Pro-Pro-His-Pro-Met-Thr-Tyr-Ser-Ala-Gln-Tyr	(12mLP38)
Val-Pro-Pro-His-Pro-Met-Thr-Tyr-Ser-Ser-Gln-Tyr	(12mLP39)
Val-Ser-Ser-Asn-Met-Tyr-Phe-Ser-Ser-Arg-Leu-Ser	(12mLP42)
Thr-Pro-Pro-Pro	(A)
Pro-Pro-Tyr	(B)
Pro-Val-Thr	(C)

Leu-Gly-Thr (D)
 Asn-Val-Tyr (E)
 His-Glu-Ser-Ser-His (F)
 Asn-Val-Tyr-Thr-Xaa-Xaa-Xaa-Ser-Pro-Xaa-Pro (G)
 ACTIVITY - Analgesic; Anticoagulant; Sedative.
 MECHANISM OF ACTION - Vaccine; Gene therapy. No suitable biological data is given.

USE - The polypeptide ligands are useful for targeting pharmaceutical agents (e.g. vaccine (claimed), genes, drugs, antigens or recombinant viruses) and carriers to the intestinal epithelial tissue of an organism. The polypeptide ligand may be used or administered to a mammal, particularly a human (claimed). The ligands are useful for facilitating the transport of drugs (e.g. analgesics, anti-coagulants, sedatives, insulin, narcotic antagonists, antisense oligonucleotides or chemotherapy agents), macromolecules or particles (e.g. biodegradable nanoparticles or microparticles), bacterial carriers or viral carriers through the human intestinal epithelium, M-cells located in gut associated lymphoid tissue, and/or Peyer's Patch tissue of the intestinal epithelium.

Dwg. 0/19

ACCESSION NUMBER: 2003-278270 [27] WPIDS
 CROSS REFERENCE: 2003-229409 [22]
 DOC. NO. CPI: C2003-072620
 TITLE: New Peyer's patch or M-cell targeting ligand, for facilitating the transport of e.g. drugs (such as, analgesics, insulin, antisense oligonucleotides or chemotherapy agents) or carriers through the human intestinal epithelium.
 DERWENT CLASS: B04 D16
 INVENTOR(S): HIGGINS, L; LANBKIN, I; O'MAHONY, D; LAMBKIN, I; OMAHONY, D
 PATENT ASSIGNEE(S): (ELAN-N) ELAN CORP PLC; (HIGG-I) HIGGINS L; (LAMB-I) LAMBKIN I; (OMAH-I) O'MAHONY D; (MERR-N) MERRION RES I LTD
 COUNTRY COUNT: 101
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG,
WO 2003004517	A2	20030116 (200327)*	EN	91	
RW:	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW				
W:	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW				
US 2003096354	A1	20030522 (200336)			
EP 1432729	A2	20040630 (200443)	EN		
R:	AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR				
AU 2002326070	A1	20030121 (200452)			
JP 2005503782	W	20050210 (200511)		148	
US 6916789	B2	20050712 (200546)			

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003004517	A2	WO 2002-IB3401	20020628
US 2003096354	A1 Provisional	US 2001-302591P	20010702
		US 2002-185815	20020628
EP 1432729	A2	EP 2002-760458	20020628
		WO 2002-IB3401	20020628
AU 2002326070	A1	AU 2002-326070	20020628

JP 2005503782	W	WO 2002-IB3401	20020628
US 6916789	B2 Provisional	JP 2003-510683	20020628
		US 2001-302591P	20010702
		US 2002-185815	20020628

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1432729	A2 Based on	WO 2003004517
AU 2002326070	A1 Based on	WO 2003004517
JP 2005503782	W Based on	WO 2003004517

PRIORITY APPLN. INFO: US 2001-302591P 20010702; US
2002-185815 20020628

L6 ANSWER 2 OF 4 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
TI Compositions for enhancing uptake of e.g. drugs or DNA across a cell membrane, comprise membrane translocating peptides having specific amino acid sequences or a derivative, fragment, motif, analog or peptidomimetic of the peptides.

AN 2001-300212 [31] WPIDS

CR 2004-034528 [03]

AB WO 200127154 A UPAB: 20050520

NOVELTY - A composition (I) comprising a peptide (MTLP or membrane translocating peptide) having an amino acid sequence (S1) of 15 amino acids, or a derivative, fragment, motif, analog or peptidomimetic of the peptide, is new.

DETAILED DESCRIPTION - A composition (I) comprising a peptide (MTLP or membrane translocating peptide) having an amino acid sequence (S1) of 15 amino acids comprising the amino acid sequence or a derivative, fragment, motif, analog or peptidomimetic of the peptide is new.

Lys Lys Ala Ala Ala Val Leu Leu Pro Val Leu Leu Ala Ala Pro FITC-LC
INDEPENDENT CLAIMS are included for:

(1) enhancing movement of an active agent across a lipid membrane, comprising a complex that is a MTLP-active agent complex or a MTLP-active particle complex, where the MTLP enhances movement of the active agent across the membrane;

(2) enhancing movement of an active particle across a lipid membrane, comprising an MTLP-active particle complex, where the MTLP enhances movement of the active particle across the membrane;

(3) identifying a derivative of a MTLP having enhanced ability to transport an active agent across a lipid membrane where the derivative of MTLP competes for transport of fMLP (a reporter drug molecule) across a membrane selected from a cell membrane, an intracellular membrane or the apical and basal membranes of an epithelial cell layer;

(4) treating a pathological disorder in an animal comprising orally administering a complex that is a MTLP-active agent complex or a MTLP-active particle complex, where the active agent is moved across the gastrointestinal epithelium of the animal into the circulation; and

(5) a composition (II) comprising a MTLP that has a sequence of (S2) - (S23), or a fragment, motif, derivative, analog or peptidomimetic of them.

Lys Lys Lys Ala Ala Ala Val Leu Leu Pro Val Leu Leu Ala Ala Pro
(S2)

Lys Lys Ala Ala Ala Val Leu Leu Pro Val Leu Leu Ala Ala Pro Arg Glu
Asp Leu (S3)

Lys Lys Cys Ala Ala Val Leu Leu Pro Val Leu Leu Ala Ala Pro Cys
(S4)

Cys Ala Ala Val Leu Leu Pro Val Leu Leu Ala Ala Cys (S5)

Lys Lys Cys Ala Ala Val Leu Leu Pro Val Leu Leu Ala Cys (S6)

Cys Ala Ala Val Leu Leu Pro Val Leu Leu Cys (S7)

Cys Ala Ala Val Leu Leu Pro Val Leu Cys (S8)

Cys Ala Val Leu Leu Pro Val Leu Leu Ala Ala Pro Cys (S9)
Cys Val Leu Leu Pro Val Leu Leu Ala Ala Pro Cys (S10)
Cys Leu Leu Pro Val Leu Leu Ala Ala Pro Cys (S11)
Cys Leu Pro Val Leu Leu Ala Ala Pro Cys (S12)
Ala Ala Val Leu Leu Pro Val Leu Leu Ala Ala Pro (S13)
Ala Ala Val Leu Leu Pro Val Leu Leu Ala Ala (S14)
Lys Lys Ala Ala Val Leu Leu Pro Val Leu Leu Ala (S15)
Ala Ala Val Leu Leu Pro Val Leu Leu (S16)
Ala Ala Val Leu Leu Pro Val Leu (S17)
Ala Val Leu Leu Pro Val Leu Leu Ala Ala Pro (S18)
Val Leu Leu Pro Val Leu Leu Ala Ala Pro (S19)
Leu Leu Pro Val Leu Leu Ala Ala Pro (S20)
Leu Pro Val Leu Leu Ala Ala Pro (S21)
Ala Ala Val Leu Leu Pro Val Leu Leu Ala Ala Lys Lys Lys Arg Lys Ala
(S22)
Lys Lys Lys Arg Lys Ala Ala Ala Val Leu Leu Pro Val Leu Leu Ala
(S23)

ACTIVITY - None given.

MECHANISM OF ACTION - Gene therapy.

USE - The peptides and the related fragments, motifs, derivatives, analogs and peptidomimetics are useful as membrane translocating peptides. The peptides and compositions comprising the peptides are useful for enhancing uptake of a pharmaceutically active agent into a cell (preferably an epithelial cell), into or out of an intracellular compartment and across a cell layer (preferably an epithelial cell layer lining the gastrointestinal tract), either directly or from a pharmaceutically active agent loaded particle, into the circulatory system of an animal. The methods are useful for intracellular gene delivery. They are also useful as rapid screening methods for the identification of MTLPs which retain the functional activity of a full-length MTLp, as cell-based screens for assaying the functional activity of a MTLp and characterizing the properties of a MTLp, for diagnosis of a pathological disorder (by oral administration of a MTLp-active agent complex or MTLp-active particle complex comprising a diagnostic agent) and for preventing or treating a pathological disorder.

ADVANTAGE - The compositions increase the uptake of a pharmaceutical into a cell.

ZElan094 was added to Caco-2 cells which were then incubated at 37 deg. C. After 4 hours with 2X fetal calf serum was added and the cells incubated for a further 20 hours at 37 deg. C. The cells were then lysed, the lysate centrifuged and the supernatant collected. DNA delivery into Caco-2 cells from liposomes and from MTLp coated liposomes was calculated as beta-galactosidase expression per microgram of total protein in the cell supernatant. The values obtained were as follows (%):

- (1) lipofectamine + DNA (control) (100);
- (2) lipofectamine + DNA + protamine (control) (90); and
- (3) lipofectamine + DNA + protamine + ZElan094 (387).

The MTLp ZElan094 coated liposomes delivered more DNA into the Caco-2 cells than either of the two control liposomes and was most effective in enhancing both the delivery of DNA into and expression of DNA within Caco-2 cells. The MTLp ZElan094, in combination with cationic lipids and DNA condensing agents, enhanced both the targeting of genes to cells and the subsequent uptake of the genes by the cells.

Dwg.0/5

ACCESSION NUMBER: 2001-300212 [31] WPIDS
CROSS REFERENCE: 2004-034528 [03]
DOC. NO. CPI: C2001-092166
TITLE: Compositions for enhancing uptake of e.g. drugs or DNA across a cell membrane, comprise membrane translocating peptides having specific amino acid sequences or a derivative, fragment, motif, analog or peptidomimetic of the peptides.
DERWENT CLASS: B04

INVENTOR(S): LAMBKIN, I J; O'MAHONY, D J; HOUGHTEN, R; LAMBKIN, I;
 O'MAHONY, D; PINILLA, C; **OMAHONY, D**
 (LAMB-I) LAMBKIN I J; (OMAH-I) O'MAHONY D J; (ELAN-N)
 ELAN CORP; (HOUG-I) HOUGHTEN R; (LAMB-I) LAMBKIN I;
 (OMAH-I) O'MAHONY D; (PINI-I) PINILLA C; (SARL-N) SARLAN
 LTD; (ELAN-N) ELAN CORP PLC
 COUNTRY COUNT: 88
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001027154	A2	20010419 (200131)*	EN	42	
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CU CZ DE DK DZ EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW					
AU 2000078110	A	20010423 (200147)			
EP 1230267	A2	20020814 (200261)	EN		
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
JP 2003511464	W	20030325 (200330)		56	
US 2003181367	A1	20030925 (200364)			
US 2004138132	A1	20040715 (200447)			
US 6780846	B1	20040824 (200457)			
US 2005101762	A1	20050512 (200532)			

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001027154	A2	WO 2000-IB1491	20000927
AU 2000078110	A	AU 2000-78110	20000927
EP 1230267	A2	EP 2000-968159	20000927
		WO 2000-IB1491	20000927
JP 2003511464	W	WO 2000-IB1491	20000927
		JP 2001-530372	20000927
US 2003181367	A1 Provisional CIP of	US 1999-156246P US 2000-671089	19990927 20000927
		US 2002-126845	20020419
US 2004138132	A1 Provisional Cont of	US 1999-156246P US 2000-671089	19990927 20000927
		US 2004-764235	20040123
US 6780846	B1 Provisional	US 1999-156246P US 2000-671089	19990927 20000927
US 2005101762	A1 Provisional CIP of Cont of	US 1999-156246P US 2000-671089 US 2002-126845	19990927 20000927 20020419
		US 2004-955656	20040930

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000078110	A Based on	WO 2001027154
EP 1230267	A2 Based on	WO 2001027154
JP 2003511464	W Based on	WO 2001027154
US 2005101762	A1 CIP of	US 6780846

PRIORITY APPLN. INFO: US 1999-156246P 19990927; US
 2000-671089 20000927; US
 2002-126845 20020419; US

2004-764235 20040123; US
2004-955656 20040930

L6 ANSWER 3 OF 4 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
TI Colour CRT display system for blending video signals with computer-generated graphic signals - has mixer for digital signals, digital graphics signals and digital alpha signals to control degree of mix for each colour.
AN 1994-101427 [12] WPIDS
AB WO 9406111 A UPAB: 19940510
The CRT includes an IC (60) having connectors (62) to receive input signals (64) of red-green-blue colour intensities. The video signals are applied to the inputs of various mixers (78,80,82). The computer-generated graphics signals (66) refer to a look-up table (90) on the chip having an addressable memory with four sections (92,94,96,98). The first three sections act as a colour look-up table (CLUT) for an index-colour system. For each address represented by one byte of the graphics signals, three digital colour-intensity signals are identified in three CLUT sections and are transmitted to the inputs of the mixers.

The fourth section stores alpha signals for each address identified by the graphics signals. Each pseudo-colour is identified by a graphing signal with a corresp. alpha signal. The alpha signal located by the graphics address signal is directed to the inputs of all of the mixers.

USE/ADVANTAGE - Conversion of digital colour signals in CRT to analog format and blended with video signal for controlling electron guns of CRT. Simplified arrangement for blending. Eliminates need for alpha-frame buffer.

Dwg.4/10

ACCESSION NUMBER: 1994-101427 [12] WPIDS
DOC. NO. NON-CPI: N1994-079288
TITLE: Colour CRT display system for blending video signals with computer-generated graphic signals - has mixer for digital signals, digital graphics signals and digital alpha signals to control degree of mix for each colour.
DERWENT CLASS: P85 T04
INVENTOR(S): OMAHONY, D
PATENT ASSIGNEE(S): (ANLG) ANALOG DEVICES INC
COUNTRY COUNT: 17
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9406111	A1	19940317 (199412)*	EN	26	
	RW:	AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE			
	W:	JP			

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9406111	A1	WO 1993-US7942	19930824

PRIORITY APPLN. INFO: US 1992-942149 19920908

L6 ANSWER 4 OF 4 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
TI Integrated-circuit chip and system for developing timing reference signals - includes MOS IC chip which serves as master timing control for entire CRT subsystem including timing of read-out of pixels signal from frame buffer.
AN 1992-331948 [40] WPIDS
AB WO 9215981 A UPAB: 19931006
The chip incorporates a latch to temporarily store digital signals

received from the port of the frame buffer. A first device receives clock signals from an external high-frequency clock signal source. A clock generator is coupled to the first device and has outputs for producing corresponding clock signals to serve as video timing signals.

A second device is coupled to the outputs of the clock generator to provide a clock cut signal for the frame buffer to clock cut the digital pixel signals from the port. A third device provides a load in signal to the latch for loading digital pixel signals into the latch.

USE/ADVANTAGE - High resolution CRT for presenting colour graphics. IC capable of providing flexibility for adapting to different operating modes.

1/11

ABEQ US 5398048 A UPAB: 19950502

The apparatus includes an MOS integrated-circuit (IC) chip which serves as the master timing control for the entire CRT sub-system, including timing of the read-out of pixel signals from the frame buffer, loading of the pixel signals into latches on the MOS chip, and multiplexing of the signals stored in the latches.

Digital signals representing the colour intensities are directed to corresponding DACs which generate the analogue intensity colour signals for the electron guns of the CRT.

USE - In high-resolution graphic display equipment of the type including a graphics processor and a frame buffer having storage banks for storing digital signals representing the colour intensities of red, green and blue colours of pixels to be presented on the CRT screen.

Dwg.1/11

ACCESSION NUMBER: 1992-331948 [40] WPIDS

DOC. NO. NON-CPI: N1992-253524

TITLE: Integrated-circuit chip and system for developing timing reference signals - includes MOS IC chip which serves as master timing control for entire CRT subsystem including timing of read-out of pixels signal from frame buffer.

DERWENT CLASS: P85 T01 T04 U13 U22

INVENTOR(S): OMAHONY, D

PATENT ASSIGNEE(S): (ANLG) ANALOG DEVICES INC

COUNTRY COUNT: 16

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9215981	A1	19920917 (199240)*	EN	33	
	RW:	AT BE CH DE DK ES FR GB GR IT LU MC NL SE			
	W:	JP			
US 5398048	A	19950314 (199516)			15

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9215981	A1	WO 1992-US1846	19920305
US 5398048	A Cont of	US 1991-665309	19910306
		US 1993-79090	19930617

PRIORITY APPLN. INFO: US 1991-665309 19910306

=> d his

(FILE 'HOME' ENTERED AT 09:14:58 ON 27 AUG 2005)

FILE 'MEDLINE, BIOSIS, WPIDS, BIOTECHDS, EMBASE, DGENE, USPATFULL'
ENTERED AT 09:15:44 ON 27 AUG 2005

L1 12 S GASTRO-INTESTINAL TISSUE AND (DRUG TRANSPORT)
L2 12 S L1 AND PEPTIDE
L3 0 S L2 AND CANCER
L4 0 S L2 AND MIGRAINE
L5 0 S L2 AND ANEMIA
E OMAHONY/AU
L6 4 S E10
L7 249 S E11
L8 0 S L6 AND L7

=> s 17 and (retro-inverted peptide)
L9 1 L7 AND (RETRO-INVERTED PEPTIDE)

=> d 19 ti abs ibib tot

L9 ANSWER 1 OF 1 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
TI **Retro-inverted peptide** used to deliver active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, hemophilia, anemia, cancer, migraines and angina pectoris.
AN 2000-400037 [34] WPIDS
AB WO 200031123 A UPAB: 20000718
NOVELTY - A **retro-inverted peptide** (I) or a derivative of it, which specifically binds to the gastro-intestinal tract receptor HPT1, hPEPT1, D2H or hSI, is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(1) a **retro-inverted peptide** (II) which enhances delivery of an active agent across the gastro-intestinal tract into the systemic, portal or hepatic circulation;
(2) a composition, comprising (I) or (II), bound to a material comprising an active agent used to treat a mammalian disease or disorder;
(3) a composition, comprising a chimeric protein bound to a material comprising an active agent used to treat a mammalian disease or disorder, the protein comprises ZElan 144, ZElan 145 or ZElan 146, or a binding portion of them fused via a covalent bond to a second protein;
(4) a composition, comprising (I) or (II) bound to a drug containing particle;
(5) a pharmaceutical composition, comprising the composition of (2) in a carrier for use in vivo in humans;
(6) an antibody, or a fragment of it, capable of immunospecifically binding (I) or (II);
(7) a composition comprising (I) or (II) coated onto, absorbed onto or covalently bonded to, the surface of a nano- or microparticle; and
(8) a nano- or microparticle formed from (I) or (II).
ACTIVITY - Hypotensive; antidiabetic; osteopathic; hemostatic; antianemic; cytostatic; antimigraine; antianginal.
MECHANISM OF ACTION - The retro-inversion peptides target gastrointestinal tract transport receptors to promote in vivo uptake of active agents and/or enhance active agent delivery across the tract into the systemic circulation.
USE - The gastrointestinal agents are used to facilitate transport of active ingredients through human or animal gastrointestinal tissue, from the lumen to the portal, hepatic, or systemic circulation (claimed). The compositions containing these agents can be used to treat or prevent mammalian, especially human, diseases or disorders, especially hypertension, diabetes, osteoporosis, hemophilia, anemia, cancer, migraine, and angina pectoris (claimed). The compositions can be administered in vivo to image selected sites or tissues, such as the gastrointestinal tract, by using an imaging agent as the active agent. The antibodies can be used for imaging peptides after in vivo administration, to monitor treatment efficacy, to measure peptide levels in physiological samples, and in diagnostic methods.

ADVANTAGE - None given.

Dwg. 0/2

ACCESSION NUMBER: 2000-400037 [34] WPIDS

DOC. NO. CPI: C2000-120829

TITLE: **Retro-inverted peptide** used

to deliver active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, hemophilia, anemia, cancer, migraines and angina pectoris.

DERWENT CLASS: B04

INVENTOR(S): O'MAHONY, D J; OMAHONY, D J

PATENT ASSIGNEE(S): (ELAN-N) ELAN CORP PLC

COUNTRY COUNT: 91

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000031123	A2	20000602 (200034)*	EN	36	
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000011744	A	20000613 (200043)			
EP 1131344	A2	20010912 (200155)	EN		
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
JP 2002530429	W	20020917 (200276)		39	
EP 1131344	B1	20050803 (200551)	EN		
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000031123	A2	WO 1999-IE117	19991119
AU 2000011744	A	AU 2000-11744	19991119
EP 1131344	A2	EP 1999-972640	19991119
		WO 1999-IE117	19991119
JP 2002530429	W	WO 1999-IE117	19991119
		JP 2000-583950	19991119
EP 1131344	B1	EP 1999-972640	19991119
		WO 1999-IE117	19991119

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000011744	A Based on	WO 2000031123
EP 1131344	A2 Based on	WO 2000031123
JP 2002530429	W Based on	WO 2000031123
EP 1131344	B1 Based on	WO 2000031123

PRIORITY APPLN. INFO: US 1998-109038P 19981119

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(FILE 'HOME' ENTERED AT 09:14:58 ON 27 AUG 2005)

FILE 'MEDLINE, BIOSIS, WPIDS, BIOTECHDS, EMBASE, DGENE, USPATFULL'
ENTERED AT 09:15:44 ON 27 AUG 2005

L1 12 S GASTRO-INTESTINAL TISSUE AND (DRUG TRANSPORT)
L2 12 S L1 AND PEPTIDE
L3 0 S L2 AND CANCER
L4 0 S L2 AND MIGRAINE
L5 0 S L2 AND ANEMIA
E OMAHONY/AU
L6 4 S E10
L7 249 S E11
L8 0 S L6 AND L7
L9 1 S L7 AND (RETRO-INVERTED PEPTIDE)

=> S 17 and 12
L10 0 L7 AND L2